

Notice of Allowability	Application No.	Applicant(s)	
	10/658,278	JONKMAN, JACOBUS	
	Examiner	Art Unit	
	Walter F. Briney III	2646	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the filing on 10 September 2003.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

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DETAILED ACTION

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

1. Claims 1-17 are allowed.

Claim 1 is limited to an "apparatus for testing a directional responding acoustic device." Arndt discloses a method of adapting a hearing aid and a hearing aid with a directional microphone arrangement for implementing the method. See Abstract. Clearly a hearing aid with a directional microphone arrangement corresponds to a "directional responding acoustic device" as recited. Furthermore, the method of adapting includes placing a hearing aid 1 within a field containing a plurality of loudspeakers 11-14 as seen in figure 1. The loudspeakers correspond to "first and second sound sources" as recited. A measuring & evaluation unit 9 provides a respective sound signal to each loudspeaker in a simultaneous manner. See column 2, lines 42-50. The measuring & evaluation unit 9 corresponds to "at least one signal generator" as recited. The measuring & evaluation unit 9 then measures the performance of the hearing aid 1, and thus corresponds to the "analyzer" as recited. However, it is noted that Arndt fails to disclose, suggest or teach that "the first and second audio signals each contain a plurality of orthogonal components, the components of said first audio signal being different from the components of said second audio signal."

While it is generally known in the art to transmit orthogonal signals (e.g. frequency division multiplexing), the suggestion to apply orthogonal transmission to

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directionality testing signals has not been timely suggested. Note that Sporer teaches the use of mutually orthogonal pseudonoise sequences to quickly and easily determine a plurality of impulse responses in a simultaneous fashion. However, Sporer is not applicable as prior art under 35 USC 102(a), (b) or (e). Thus, claim 1 is allowable over Arndt in view of Sporer.

Claims 2-10 are limited to the "apparatus according to claim 1," and thus are allowable over the cited prior art for at least the same reasons.

Claim 11 is limited to "a method for testing a directional responding acoustic device." The method steps of claim 11 are fully comprehended by the apparatus of claim 1. It is noted that as claim 11 is essentially the same as claim 1, including the indication of a plurality of orthogonal components, claim 11 is allowable over the cited prior art.

Claims 12-17 are limited to "a method according to claim 11," and thus are allowable over the cited prior art for at least the same reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F. Briney III whose telephone number is 571-272-7513. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WFB



SINH TRAN
SUPERVISORY PATENT EXAMINER